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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/586,425	07/19/2006	Martin Lang	VO-766	4878
43419 7590 11/12/2008 PAULEY PETERSEN & ERICKSON 2800 WEST HIGGINS ROAD SUITE 365 HOFFMAN ESTATES, IL 60195				
EXAMINER				
WILSON, ADRIAN S				
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2835				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/586,425

**Applicant(s)**

LANG ET AL.

**Examiner**

ADRIAN S. WILSON

**Art Unit**

2835

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 July 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-893)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date 08/24/2007

**DETAILED ACTION**

1. Claims 1-14 have been considered for examination.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Shimada (Japanese Patent 08046381 A) (from IDS).
4. In re Claim 1, Shimada discloses a mounting plate (100) for electronic components (GTR) having coolant lines (12, 14, 16, 18) integrated in a plate body (10) for a cooling fluid to flow through, wherein a fastening arrangement for mounting electronic components to be cooled is arranged on the plate body (10), the fastening arrangement has at least one first groove (GP), having a C-shaped cross section and extends in a straight line in the an extension direction of the mounting plate (100), into which at least one screw nut (M1-M4) for forming a screw (N1-N4) connection with an electronic component (GTR) can be inserted and fixed against relative rotation, and the fastening arrangement has at least one second groove (GP) designed identically to the first groove (GP) and extending parallel with the first groove (GP) with a distance from the first groove (GP) being substantially determined by the length of an extension perpendicularly with respect to the first and second grooves (GP) of the electronic component (GTR) to be mounted, the mounting plate (100) comprising: the electronic

components (GTR) to be mounted have having screw holes at a distance from each other that is less than the distance of the second groove (GP) from the first groove (GP), and the electronic components (GTR) to be mounted are clampingly fixed in place at least on one side through an angle bracket by screws (N1-N4) within screw nuts (M1-M4) introduced into the respective groove (GP).

5. In re Claim 2, Shimada discloses a fastening arrangement that has at least one further groove (GP), identical to the first groove and the second groove extending parallel with the second groove and which extends at the side of the second groove facing away from the electronic component (GTP) to be mounted at a second distance from the latter electronic component which is less than the distance between the first groove and the second groove.

6. In re Claims 3 and 9, Shimada discloses electronic components (GTP) to be mounted having screw holes (See Figure 1) at a distance from each other that corresponds to the distance of a second groove (GP) from a first groove (GP), and the still further groove (GP) from the second groove (GP), and can be directly fastened by screws (N1-N4) in the screw nuts (M1-M4) inserted into the grooves (GP).

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 4, 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimada (Japanese Patent 08046381 A) (from IDS) taken alone.

In re Claims 4 and 10, Shimada discloses the limitations of Claims 1-3 above, but does not explicitly disclose a distance between screw holes in an electronic component that is less than the distance between a first groove and a further groove. However, it would have been obvious to one having ordinary skill in the art of electronics at the time the invention was made to place a screw hole in a different location to correspond with a different groove location, since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70. The placement of a screw hole in a second location would make the electrical component more versatile to other mounting configurations.

9. Claims 5-8 and 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimada (Japanese Patent 08046381 A) (from IDS) in view of Herzog (German Patent 252474 A1) (from IDS).

10. In re Claims 5 and 11, Shimada discloses an angle bracket (See Figures 1-2 and 4) that has a level base plate for placement against the mounting plate 100. Shimada does not disclose a clamping area angled off with respect to the base plate for a clamping fixation of the electronic component to be mounted. However, the use of such clamping angle brackets is common in the art of electronics. For example, Herzog discloses an angle bracket that has a level base plate 4 for placement against a mounting plate 2 and a clamping area 3 angled off with respect to the base plate 4 for a

clamping fixation of a component 1 to be mounted. It would have been obvious to one having ordinary skill in the art of electronics at the time the invention was made to have substituted the angle bracket as disclosed in Shimada with the clamping angle bracket as disclosed by Herzog. All the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention. See *KSR International Co. v. Teleflex Inc.*, 550 U.S. \_\_\_, 82 USPQ2d 1385 (2007). The use of a clamping angle bracket would better secure the electrical component to the mounting plate.

11. In re Claims 6 and 12, Herzog also discloses an angle bracket that has at least one elongated hole (See Figure 1) extending perpendicularly from the component 1. Shimada also discloses an angle bracket with a hole (to accept screws N1-N4) that extends in a direction perpendicular with respect to the direction of a second groove (GP) and a further groove (GP) for receiving a screw N1-N4.

12. In re Claims 7 and 13, Shimada discloses nuts M1-M4 to accept screws N1-N4. Shimada does not disclose the nuts being spring nuts. The examiner takes official notice of facts outside the record, that spring nuts was well known in the art of electronics at the time of the invention, because of their ability to provide a more durable and shock absorbing lock with a screw. Therefore, it would have been obvious to a person having ordinary skill in the art of electronics at the time of the invention to use

spring nuts in place of the nuts disclosed by Shimada, in order to provide a more durable connection between the screws and the nuts.

13. In re Claims 8 and 14, Shimada discloses a first groove GP, a second groove GP and a further groove GP that are made of one piece with a plate 100 body.

### ***Conclusion***

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Jairazbhoy et al. (US Patent 6,992,887 B2), Patel (US Patent 6,687,126 B2), Parish, IV et al. (US Patent 6,462,949 B1) and August et al. (US Patent 4,884,168) disclose a cooling plate with internal airflow means to cool an attached electrical component.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ADRIAN S. WILSON whose telephone number is (571)270-3907. The examiner can normally be reached on Mon.-Thu. 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jayprokash Gandhi can be reached on (571) 272-3740. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Adrian S Wilson  
Examiner  
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asw

/Anatoly Vortman/  
Primary Examiner, Art Unit 2835